



MPEG-1, 2, 4 & WM



**VBDirectory
Users Guide
Version 4.1**

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1: Introduction

ICON KEY

Important Information

VBrick products are now shipped with a management application called VBDirectory, which provides quick reference and access to all VBricks on a network. It is available as a standalone program available on the product CD (or from the VBrick website) and bundled with the release of many VBrick products.

The VBDirectory application listens to the Management SAP (Session Announcement Protocol) sent by each VBrick on the network¹. This allows the administrator to locate the name and IP Address of each VBrick on the network through its Host Name, which is set in the Internet Protocol, or IP section of the software. If a Host name has not been selected, the VBrick is identified through the Media Access Control (MAC) address, a hardware address that uniquely identifies each node of a network. On Ethernet models, the VBrick's Host Name identifies the VBrick to various network applications, including DHCP, SNMP and VBrick application tools.

As long as SAP transmit is enabled, the VBrick sends a Management SAP to VBDirectory's default address. When a new VBrick device is added to the network, VBDirectory automatically locates it and adds it to its list. Double-clicking the VBrick address after locating the SAP in the VBDirectory interface launches a Web Interface that provides VBrick control though one of the following:

- VBrick 1000, 2000, 3000 Series (MPEG-1) appliances through VAdmin software or through Telnet access.
- VBrick 4000, 5000 and 6000 Series (MPEG-2, MPEG-4, and WM) appliances through the Integrated Web Server (IWS).
- EtherneTV-STB appliances through a web browser interface.
- EtherneTV WM IP Receiver through a web browser interface.

Benefits of VBDirectory

- Significantly simplifies management of environments with multiple VBrick appliances.
- Automatically recognizes when VBricks are added or removed from the network.
- Allows VBricks to be grouped together for management purposes.

¹ VBDirectory is compatible with software release 2.0.0 or higher for the VBrick 6000 Series and release 2.4.0 for VBrick 3000 series. The Upgrade function for the VBrick 3000 series requires VAdmin release 3.2.5.1 and higher. It is not backwards compatible with previous versions of code.

2: Installation

Your Network

The PC running VBDirectory needs to be connected to the network, and there needs to be at least one VBrick configured to send Management SAPs (please refer to the VBrick Admin Guide). It operates on any PC that has access to the network.

System Requirements

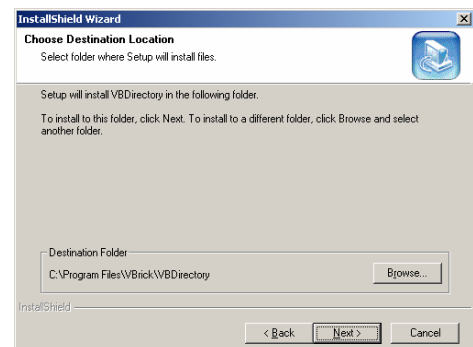
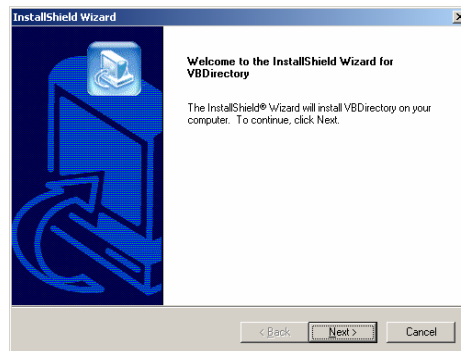
VBrick Systems recommends the following minimum system specifications:

- 2000, XP, or Vista.
- Any Pentium processor.
- 128 Mb RAM.
- Minimal space required (under 400k).

Installation

VBDirectory is installed in either of the following two ways:

- Run SetupVBDirectory4_1_0.exe and follow the on-screen directions. The Setup program installs the program on your computer. It is recommended that the default settings be used. The setup installs the software in the default location in Program Files>VBrick>VBDirectory . Use the default folder or specify the location.



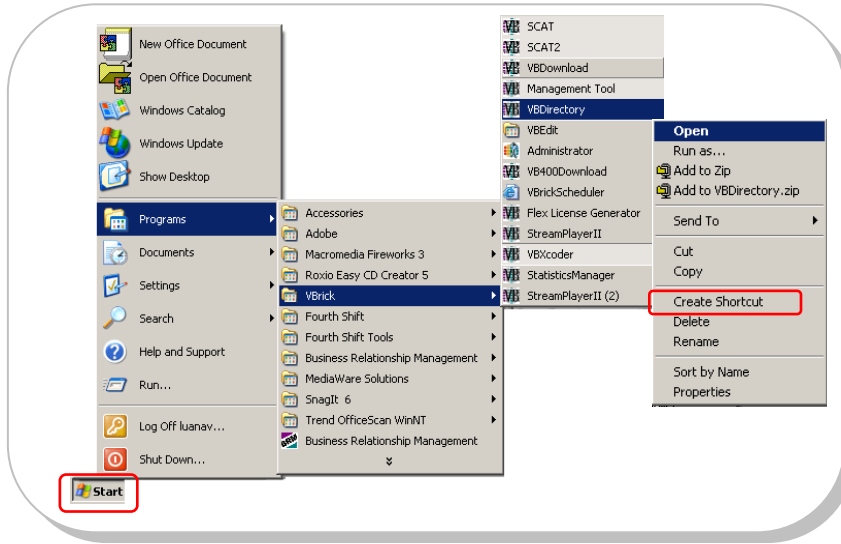
- VBDirectory is installed along with the installation or upgrade of VB1000-2000-3000 MPEG-1 and VB400-5000-6000 MPEG-2 and MPEG-4 VBrick appliances when using Intelligent Download, the VBrick installation and upgrade program.

IMPORTANT: VBDirectory must be closed during installation or upgrade to avoid an error being reported. If the application is open, just close the file and complete the installation.

3: Operation

Launch VBDirectory

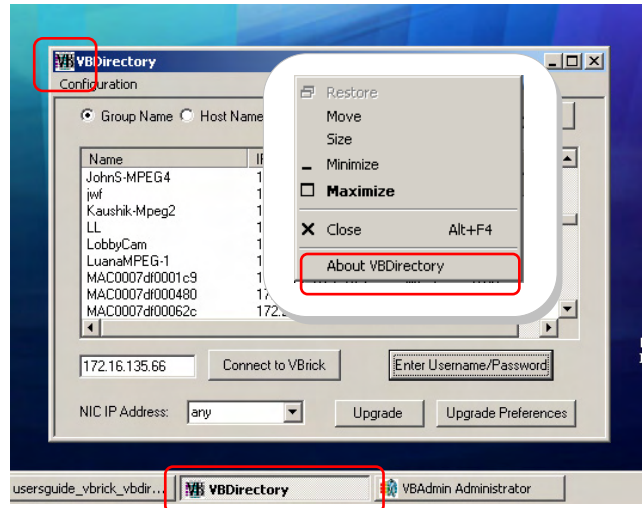
VBDirectory runs from the Start menu, Programs, VBrick, VBDirectory.



Create a shortcut by right-clicking on VBDirectory and choosing Create Shortcut.

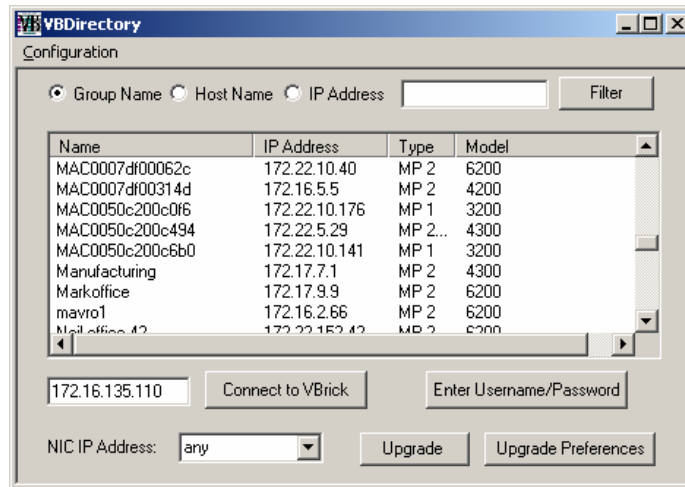
Features

- VBDirectory can be resized by dragging the corners or sides of the menu.
- You can sort the listing by clicking on any column header.
- Check the version of VBDirectory by viewing the About Box. The About Box can be accessed by selecting the VBDirectory icon in the top left of the menu or by right clicking anywhere in the title bar or from the Windows bar.



VBDirectory Settings

VBDirectory detects and identifies all VBricks that are configured to send Management SAPs to a network address accessible to the PC on which VBDirectory is running.



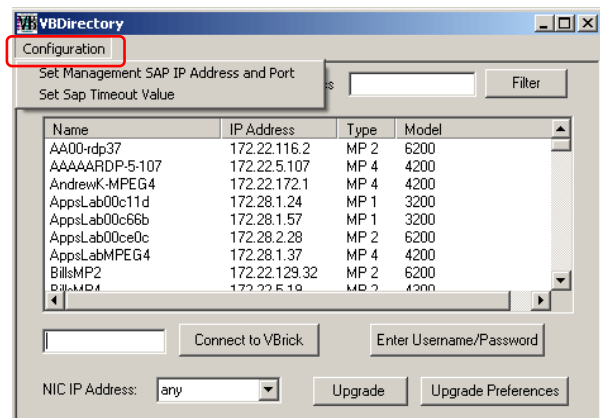
The interface window for VBDirectory displays a list of the VBricks on the network:

- **Name** – Either the Host Name or MAC address of the appliance.
- **IP Address** – The IP address of the unit.
- **Type** – MPEG-1, MPEG-2, MPEG-4, STB (Set-Top Box), WM (Windows Media or WM IPR).
- **Model** – The VBrick Model number.

Configuration

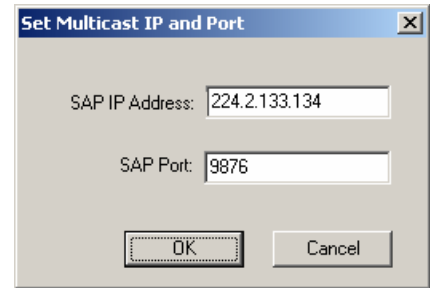
The Configuration pull down menu contains the settings for:

- The Default Management SAP IP Address.
- The Port and the Timeout value.



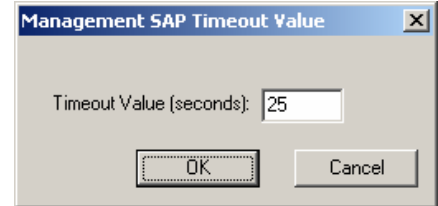
Management SAP IP Address

VBDirectory is configured to pick up Management SAPs transmitted by VBricks. The default address from which the Management SAPs are obtained is 224.2.133.134, port 9876. If the default address from which the Management SAP is received is changed in VBDirectory without changing the SAP address to which the Management SAP is sent by the VBrick, the Management SAP will no longer be visible.



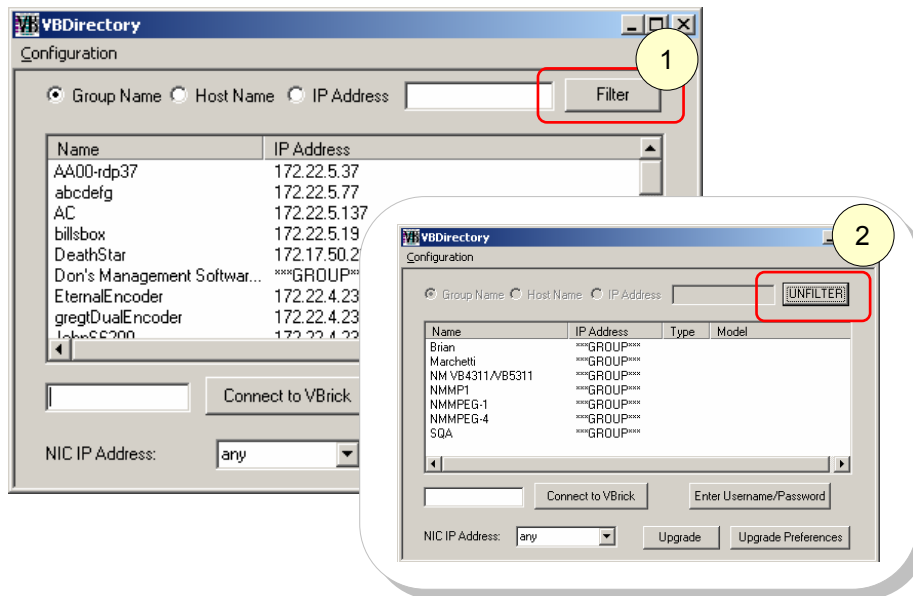
Timeout Value

The SAP Timeout Value specifies the length of time a Management SAP will remain on the list after it stops being transmitted. This configuration option works in tandem with the Retransmit Time value in the Management Screen of the VBrick. If the SAP Timeout Value is smaller than the Retransmit Time, then that VBrick's Management SAP will keep intermittently appear on VBDirectory's list. Take this into account when changing the SAP Timeout Value. The default value is set at 25 seconds.



Filter

It is possible to filter the list through the Group Name, Host Name or IP Address by selecting one of the radio buttons and clicking on **FILTER** ①. To return to the entire list, click the same button, which will have toggled to **UNFILTER** ②.

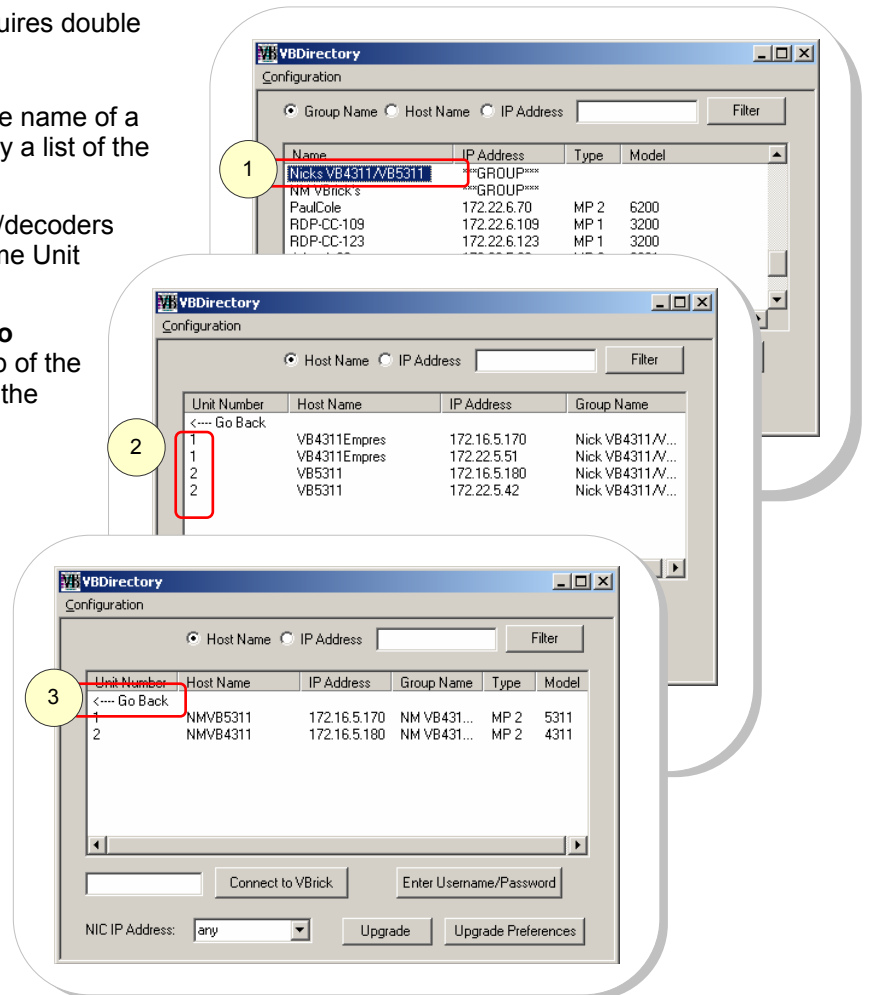


Groups

The configuration screens on the VBrick allow the operator to organize VBricks into groups. This helps simplify identification and streamline access to VBricks within a group. Within the group an individual VBrick is identified by a unit number. Dual encoders or decoders are identified by the same number.

Displaying a group requires double clicking on it:

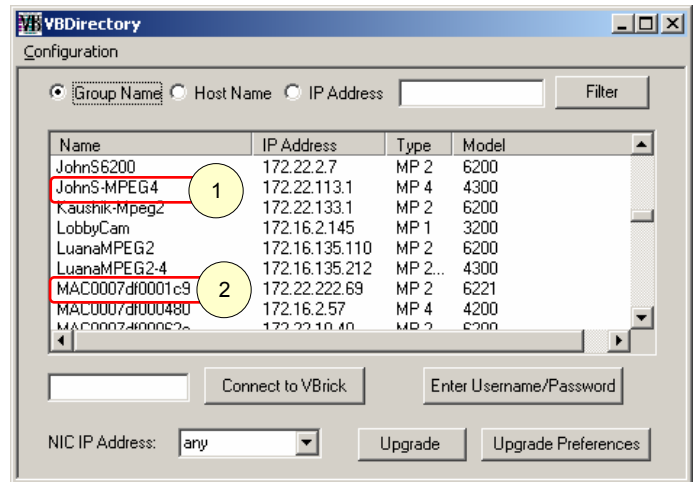
- Double click the name of a group to display a list of the contents ①.
- Dual encoders/decoders display the same Unit Number ②.
- Double click **Go Back** at the top of the list to return to the entire list ③.



Host Name

The Host Name is set in the Internet Protocol, or IP section of the VBrick. Please refer to the users guide for the model. If a Host name has not been selected, the VBrick is identified through the Media Access Control (MAC) address, a hardware address that uniquely identifies each node of a network.

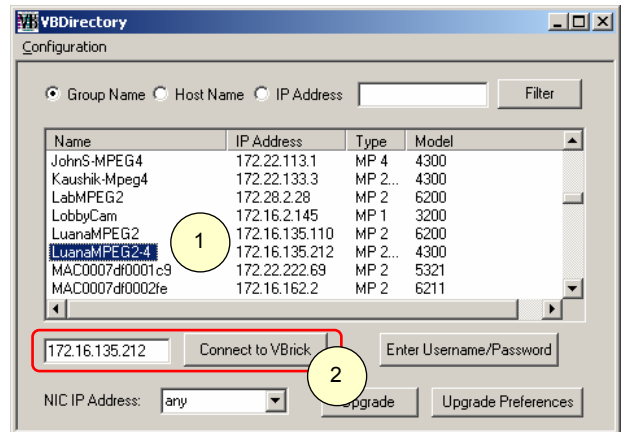
- Host Name is set in the IP configuration section of the VBrick ①.
- Host Name is not set. VBrick is identified by the MAC address ②.



Connecting to VBricks

Connect to a VBrick by double clicking on a highlighted selection ①. VBDirectory will launch the appropriate communication program to connect with the VBrick:

- Connection to VB1000-2000-3000 Series VBricks will be made through VBAAdmin (VBAAdministrator).
- Connection to VB4000-5000-6000 Series VBricks will be made through the Integrated Web Server, or IWS.
- Connection to EtherneTV-STB will be made through a web browser.



For detailed information on the Integrated Web Server and VBAAdmin, please refer to the appropriate VBrick Users Guide.

Unlisted VBricks

If a VBrick does not appear in the list, it is still possible to connect by entering the IP address in the block and selecting Connect to VBrick ②. When the appropriate management program is displayed, enter the User Name and Password ③ and select OK.

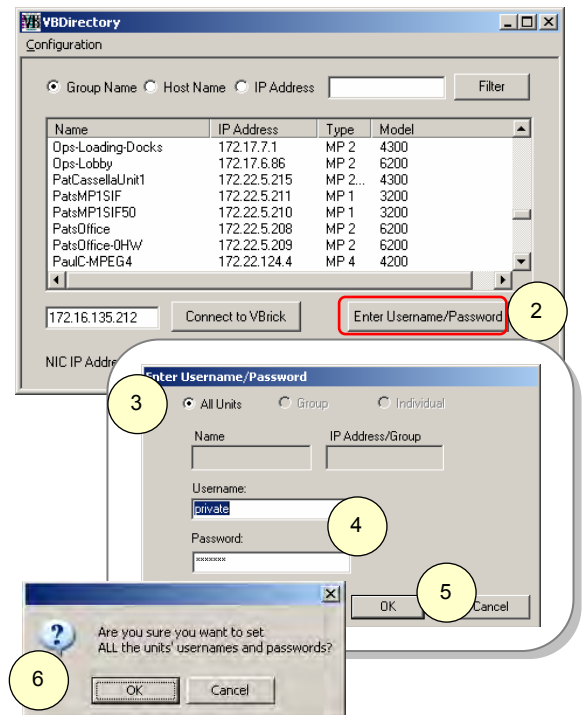
Username and Passwords

The Username and Password can be set for all units, groups or individual units. VBDirectory keeps track of Username and Password use. The selection available is dependent on whether a single unit or group is selected in the VBDirectory interface.

All Units

To set the Username and Password for all units:

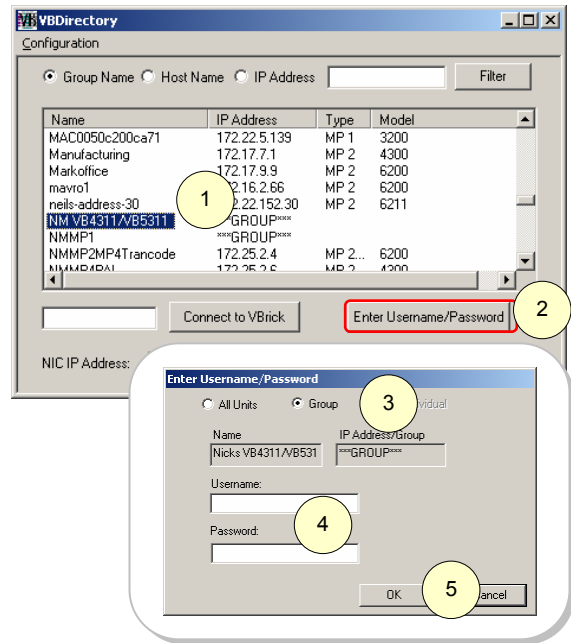
1. Do not highlight a selection in the VBDirectory interface window.
2. Select the "Enter Username/Password" button.
3. The All Units radio button will be selected.
4. Enter a Username and Password.
5. Select OK.
6. Confirmation is requested.



Groups

To set the Username and Password for a group:

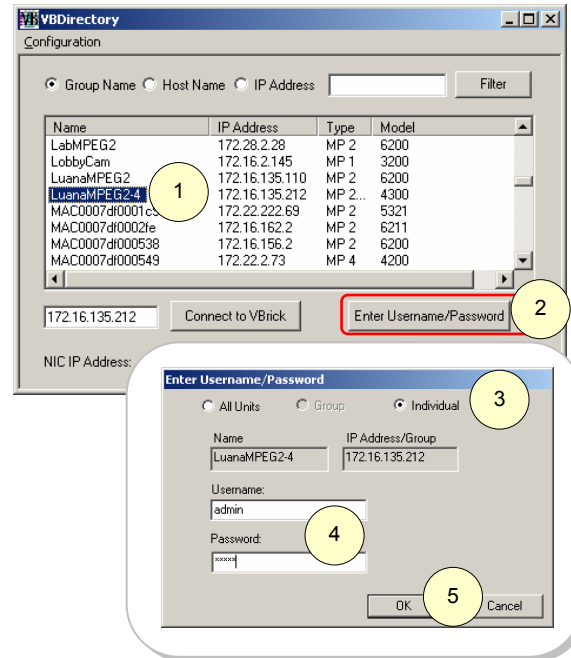
1. Highlight a group in the VBDirectory interface window.
2. Select the Username/Password button.
3. The Group radio button will be selected.
4. Enter the Username and Password.
5. Select OK.



Individual Units

To set the Username/Password for an individual unit:

1. Highlight the unit in the VBDirectory interface window.
2. Select the Enter Username/Password button.
3. The Individual radio button will be selected.
4. Enter a Username and Password.
5. Select OK.



VB1000-2000-3000

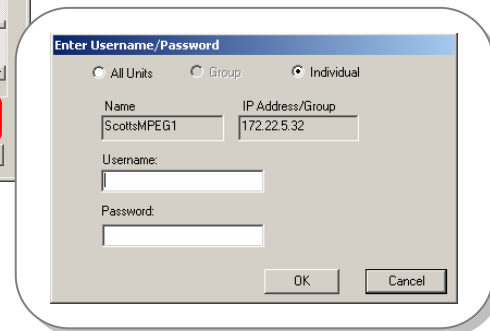
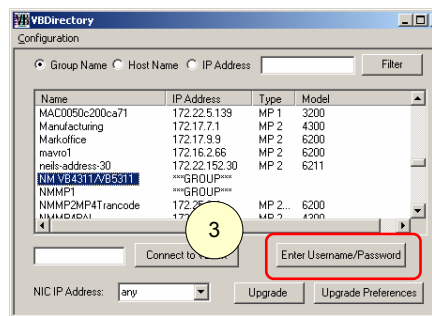
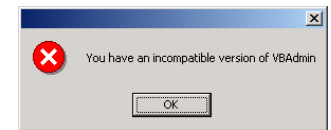
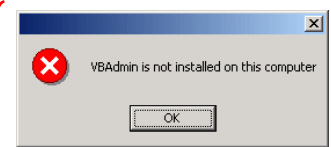
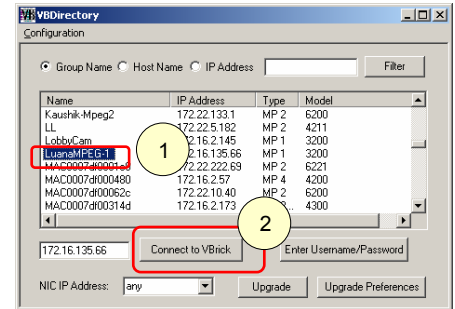
VB1000-2000-3000 Connection

Connect to a unit through the default name or Host Name of the unit. The default name is the MAC address of the VBrick. The default name can be changed to a selected Host Name in the VBrick appliance (please refer to the VB1000-2000-3000 Users Guide).

To connect to a VBrick, double click on its name in the Name column (either the Host Name or MAC address) ①, or single click the name and press the "Connect to VBrick" button ②. That connects to a VB1000-2000-3000 appliance through VBAAdmin.

Where VBAAdmin is not available, the connection will be made through Telnet.

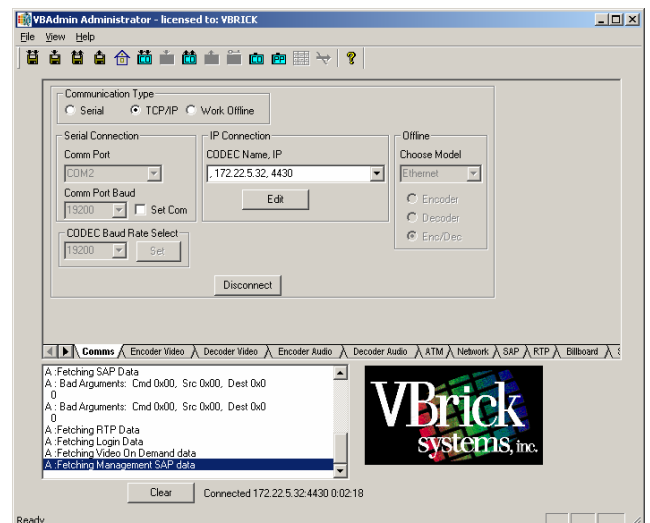
NOTE: The VBDirectory Download function for VB100-2000-3000 appliances is compatible with VBAAdmin 3.2.5.1 or higher. If a message appears stating that VBAAdmin is not installed or incompatible, install a newer version from the installation disk or get a newer copy from the VBrick web site.



VBAAdmin

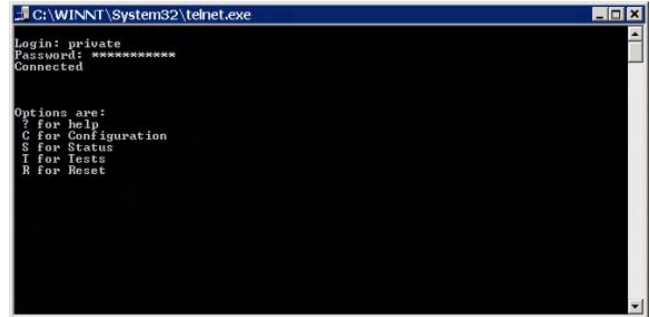
A User Name and Password are required before connecting to the VBrick through VBAAdmin. If the User Name and Password that VBDirectory uses to connect to the appliance is different or is not set, use the "Enter Username/Password button" ③.

NOTE: If VBDirectory fails to connect with the appliance, check to make sure that the Username and Password are set correctly ③.



Telnet

If VBAAdmin is not installed, the connection will be attempted through Telnet.



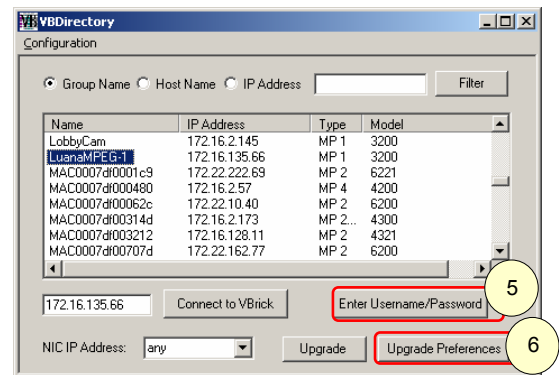
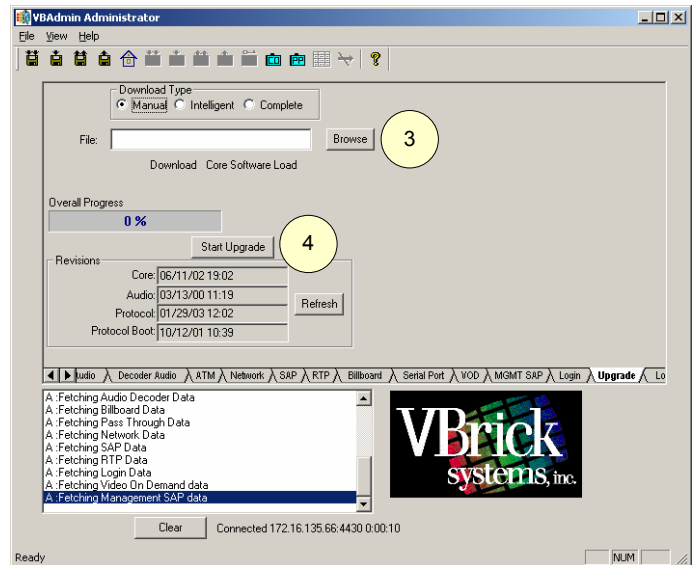
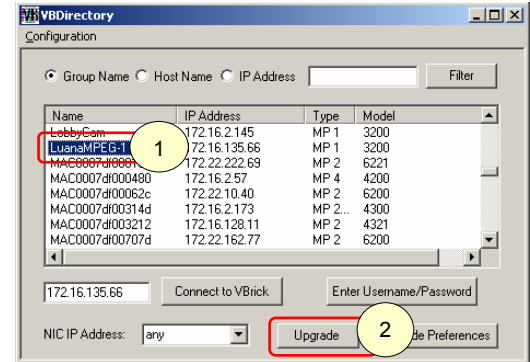
VB1000-2000-3000 Upgrade

To use the Upgrade feature of VBDirectory for VB1000-2000-3000 series appliances:

- Highlight the VBrick ①.
- Select Upgrade ②. If the User Name and Password are correct, the connection will be made through the Upgrade tab of VBAAdmin.
- Browse to the location of the Download ③.
- Select the Start Upgrade button ④.

NOTES:

- Select the Enter Username and Password button if this information needs to be entered or changed ⑤.
- If necessary, select the Upgrade Preference button ⑥. For VB1000-2000-3000 appliances, select VBAAdmin.
- If unable to connect, check that the User Name and Password are entered correctly ⑤.

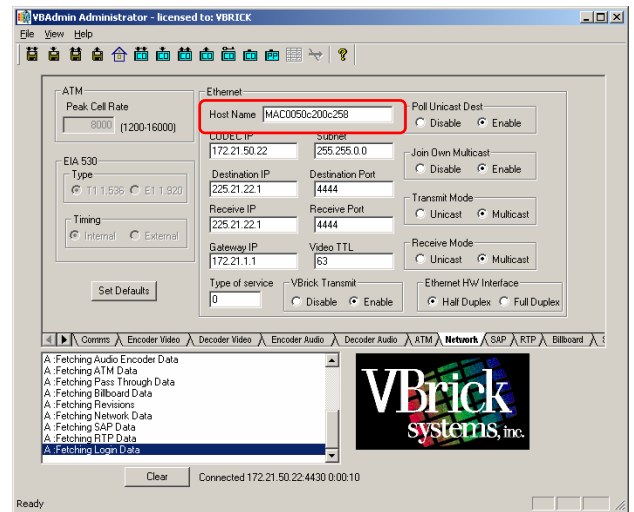


VB1000-2000-3000 Settings

The following VBrick settings affect interoperability between the VB1000-2000-3000 series appliance and VBDirectory.

Host Name

The Host Name is set in the Network section of VAdmin or in the corresponding Command Line (CLI) instructions. Please refer to the VBrick Users Guide.



Management SAP

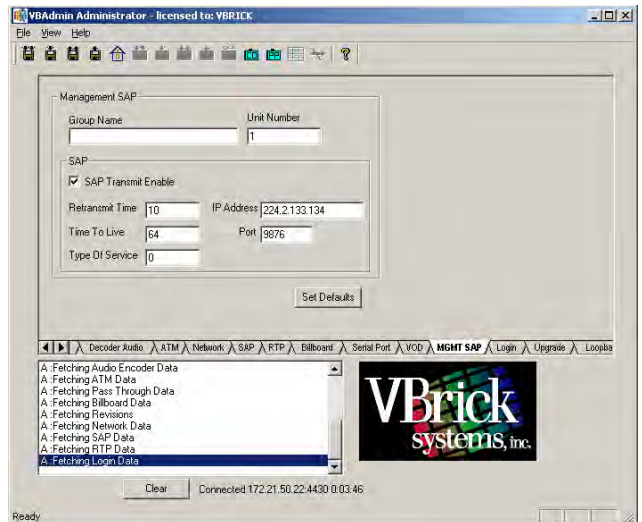
These parameters define information used in the SAPs emitted by the VBrick, which are received by the VBDirectory management tool and other VBrick applications. They are found in the Management SAP section of VAdmin. Please refer to the VBrick 1000-2000-3000 Users Guide.

Management SAP IP Address – The default address from which Management SAPs are obtained by VBDirectory is 224.2.133.134, port 9876. Sending SAPs from a VBrick to any address other than that, without changing the default VBDirectory configuration will make Management SAPs invisible to VBDirectory.

SAP Transmit enabled – SAP transmit must be enabled in the SAP option settings.

Timeout – The retransmit time set in the VBrick must be **less** than the SAP timeout value set in VBDirectory. The VBDirectory default timeout value is set at 25 seconds.

Group Name – This parameter defines the Group Name for this box. It is included in the Management SAPs used by VBDirectory. It is an optional setting used for organizing VBricks into groups to simplify use of VBDirectory.

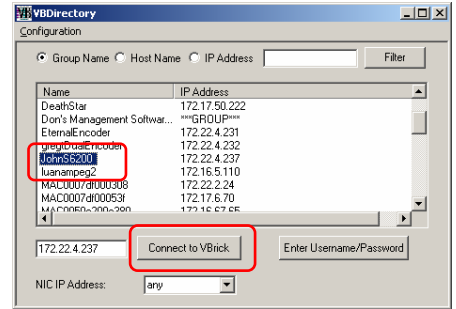


VB4000-5000-6000

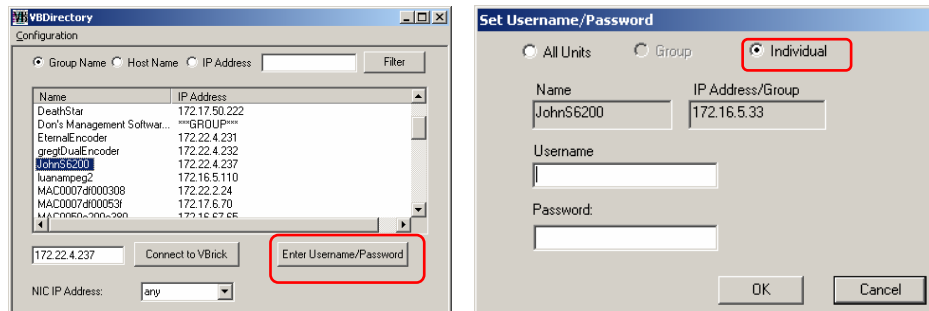
VB4000-5000-6000 Connection

To connect to an individual VBrick, double click on its name in the Name column (either the Host Name or MAC address), or single click the name and press the “Connect to VBrick” button. The default name is the MAC address of the VBrick.

That will launch the Integrated Web Server (IWS) Login Page.



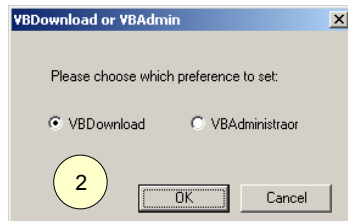
If connecting to a VBrick requires a Username and Password to be set, use the “Enter Username/Password” button. A pop up box will appear allowing you to enter a new username and password. Press the “OK” button to confirm.



VB4000-5000-6000 Upgrade

Settings for Upgrade Preferences

If necessary, set the Upgrade Preference button ①. For VB4000-5000-6000 appliances, select VBDownload ②.



- **Download Type** – Manual, Automatic.
- **Revision Folder** – Browse to location or enter.
- **Keep Revision up to date** – If checked, VBDirectory will keep track; if unchecked, it will need to be entered manually.
- **Action** – Choose Action to perform.
- **Groups to Download** – If Manual download is selected, choose the components.

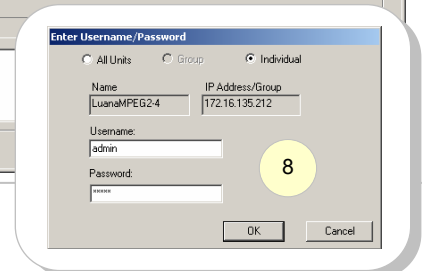
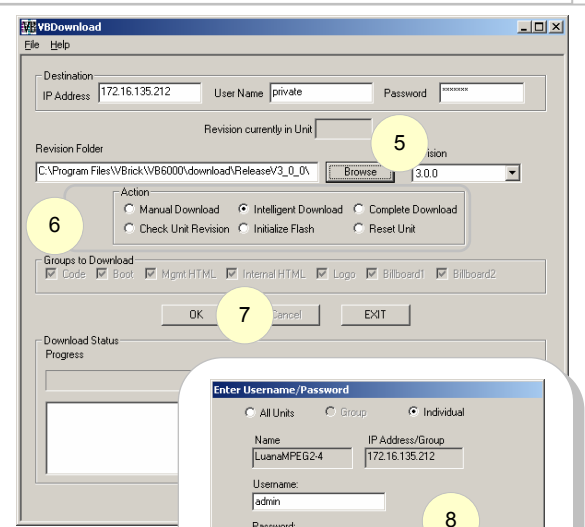
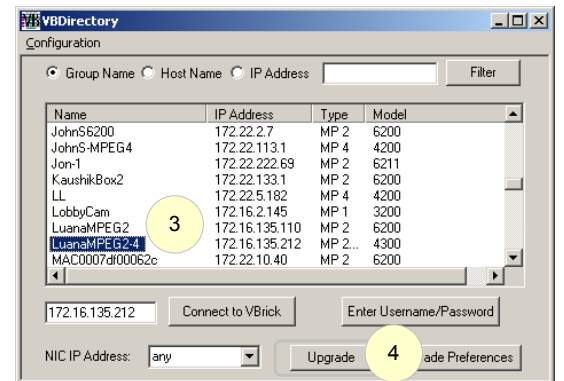
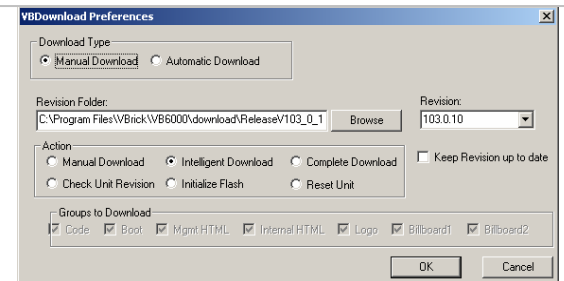
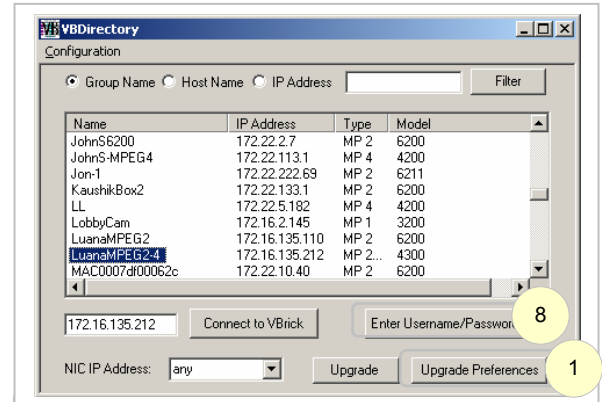
Upgrade

To use the Upgrade feature of VBDirectory for VB4000-5000-6000 series appliances:

- Highlight the VBrick ③.
- Select the Upgrade button to run VBDownload ④.
- Browse to the location of the download ⑤.
- Select the VBDownload Action to perform ⑥.
- Select OK ⑦.

NOTES:

- If unable to connect, check that the Username and Password are entered using the Enter the Username/Password button on the VBDirectory interface window ⑧.



VB4000-5000-6000 Settings

The following VBrick settings affect interoperability between the VB4000-5000-6000 series appliance and VBDirectory.

Host Name

The Host Name is set in the Configuration: Ethernet section of the Integrated Web Server (IWS) or in the corresponding Command Line (CLI) instructions. Please refer to the VBrick Users Guide.



Setting the Management SAP

These parameters define information used in the SAPs emitted by the VBrick, which are received by the VBDirectory management tool and other VBrick applications. They are found in the Configuration: Network – Management section of IWS or the corresponding Command Line (CLI) instructions. Please refer to the VBrick Users Guide.

Management SAP IP Address –

The default address from which Management SAPs are obtained by VBDirectory is 224.2.133.134, port 9876. Sending SAPs from a VBrick to any address other than that, without changing the default VBDirectory configuration will make Management SAPs invisible to VBDirectory.

SAP Transmit enabled – SAP transmit must be enabled in the SAP option settings.

Timeout -- The retransmit time set in the VBrick must be **less** than the SAP timeout value set in VBDirectory. The VBDirectory default timeout value is set at 25 seconds.

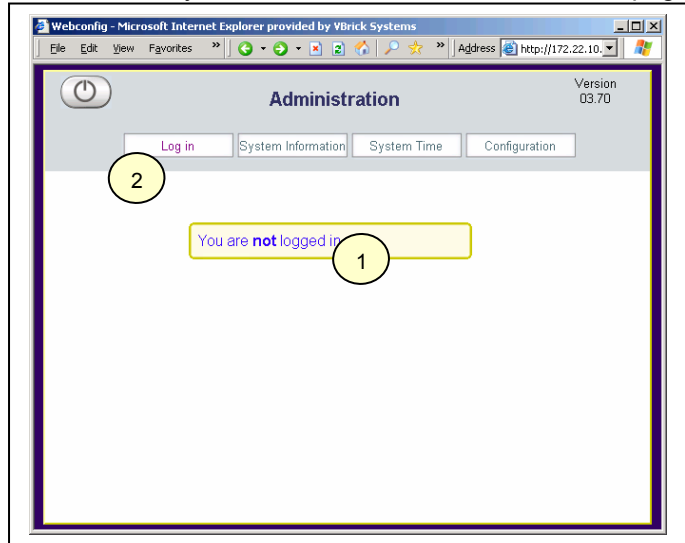
Group Name – This parameter defines the Group Name for this box. It is included in the Management SAPs used by VBDirectory. It is an optional setting used for organizing VBricks into groups to simplify use of VBDirectory.



EtherneTV-STB

EtherneTV-STB Connection

An EtherneTV-STB can be recognized by the designation ETV-STB in the Model column. If you double-click on an EtherneTV-STB list item you will be taken to an Administration page with the words “You are not logged in.” ① Clicking on the Log in button ② will take you to the Configuration Login screen where you can enter your User Name and Password and start managing the EtherneTV-STB. There is currently no support for logging in automatically to the web browser configuration tool through VBDirectory.



EtherneTV-STB Upgrade

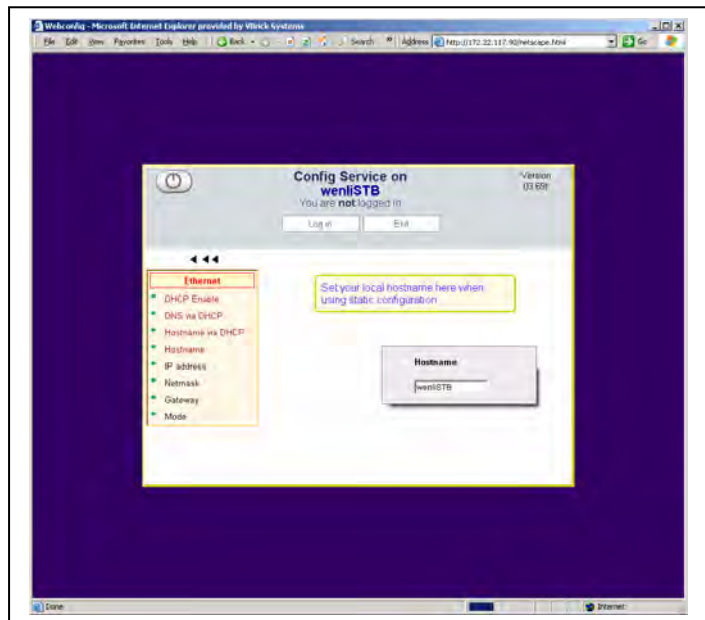
Not supported at this time

EtherneTV-STB Settings

The following VBrick settings affect interoperability between the EtherneTV-STB appliance and VBDirectory.

Host Name

Host Name ① – The easiest way to configure the hostname is set Configuration->Network->Ethernet>DHCP Enable to “static” and manually enter a hostname in the Configuration->Network->Ethernet>Hostname screen. The value you enter will appear in the name column of VBDirectory.



Setting the Management SAP

To set specific Management SAP parameters go to the Configuration->Network->Management section of the web browser.

Management SAP IP address and Port– The default address from which Management SAPs are obtained by VBDirectory is 224.2.133.134, port 9876. Sending SAPs from an EtherneTV-STB to any address other than that, without changing the default VBDirectory configuration will make Management SAPs invisible to VBDirectory.

Transmit enable – Checked by default. Uncheck to stop sending Management SAPs.

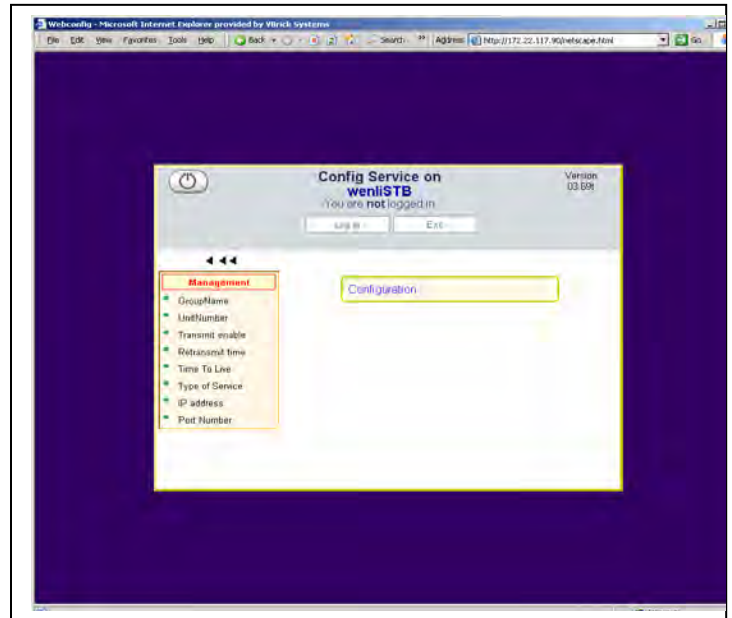
Retransmit Time -- 10 by default. The retransmit time set in the EtherneTV-STB must be **less** than the SAP timeout value set in VBDirectory. The VBDirectory default timeout value is set at 25 seconds.

Group Name – Blank by default, this parameter defines the Group Name for this box. It is an optional setting used for organizing VBrick appliances into groups to simplify use of VBDirectory.

Unit Number – Blank by default. If the **Group Name** parameter is not blank, this parameter must be filled with a numerical value. This value is used to sort the EtherneTV-STB and other VBrick appliances within the user created group.

Time To Live – 64 by default. The number of routers (hops) the Management SAP is permitted to pass through before expiring.

Type of Service – 0 by default. This is an eight bit field that is assigned to request special handling of traffic.



Compatibility

- VB1000-2000-3000 Series VBricks, release 2.4.0 and higher.
- VB4000-5000-6000 Series VBricks, release 2.0.0 and higher.
- EtherneTV-STB, release 2.0.0 (3.7.0) and higher.

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